

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/EP2004/000981	International filing date (day/month/year) 28.01.2004	Priority date (day/month/year) 08.01.2004
International Patent Classification (IPC) or national classification and IPC A61K7/00, C11D17/04		
Applicant Johnson & Johnson GmbH et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ sent to the applicant and to the International Bureau a total of 4 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 04.08.2004	Date of completion of this report 12.08.2005
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Glikman, J-F Telephone No. +31 70 340-3055



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/000981

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-82 as originally filed

Claims, Numbers

1-20 filed with telefax on 18.02.2005

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-20
	No: Claims	
Inventive step (IS)	Yes: Claims	1-20
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: WO 00 42961

D2: WO 03 071985

The document D1 is regarded as being the closest prior art to the subject-matter of claim and shows:

a mitt onto which a composition with a silicone wax, stearyl alcohol and glycerine has been applied. Water is present as an impurity (see example 39).

The subject-matter of claim 1 differs from this known D1 in that the water phase is present in an amount of less than 25%. Moreover, the wax phase is dispersed in silicones and a melting point and/or a particle size cannot be assigned to that phase.

The document D2 discloses a pouch for hair removal which contains a dispersion of 6% cetearyl alcohol in about 71% water (see table 1, claim 1).

The subject-matter of claim 1 differs from this known D2 in the following: as above, the presence of emulsifiers and compatibilisers in the dispersion make the assignment of a melting point and/or of a particle size to the wax phase impossible. In that respect, the distinguishing feature between D2 and the subject-matter of present claim 1 is the presence of an oil phase rather than a wax phase in D2

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

Present claims 2-20 pertains to embodiments of the composition of claim 1 itself or to processes involving such composition and also have a novel subject-matter.

The problem to be solved by the present invention may be regarded as the provision of a wax dispersion on an applicator which enables an excellent transfer of skin actives on the skin and a long lasting protection of the skin.

The solution to this problem proposed in claim of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

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- when contacted for the first time with the applicator, the wax particles of present application stay on the surface of the applicator and enable a better transfer of the actives from the applicator.

- neither D1, D2 nor the documents cited in the International Search Report (ISR) disclose any technical effect related to the presence of individual wax particles in a supported composition.

- the combination of the known prior art documents dealing with skin-care applications would not result in the compositions and methods of present application. There is no suggestion in D1 to increase the water phase up to 25 wt.% and there is no hint in D2 to decrease the compatibility of the dispersed, quasi-solubilised oil phase with the aqueous medium.

The subject-matter of present claims 1-20 involves an inventive step in view of the documents cited in the ISR (Art.33(3) PCT).

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Amended set of claims

1. A product comprising an applicator selected from the group consisting of a puff (pouf), pad, sponge, foam, glove, mitt, brush, swab, cotton ball and a bar, which comprises an applicator, other than a porous or absorbent sheet, said applicator has been contacted with a wax dispersion which comprises
 - (a) 1 – 75 w/w-% of a wax phase having a melting point higher than 25°C, that contains at least one oil or wax component selected from dialkyl(ene) ethers, dialkyl(ene) carbonates, dicarbonic acids and hydroxyfatty alcohols, and any mixture of these components, wherein the total amount of the dialkyl(ene) ethers, dialkyl(ene) carbonates, dicarbonic acids and the hydroxyfatty alcohols present in the wax phase, relative to the total weight amount of the wax phase, is in the range of 0.1 to 30 w/w-%, and wherein the wax particles have an average particle size, which is in the range of 0.5 to 100 µm, in particular in the range of 1 to 50 µm, more in particular from 1 to 50 µm, and
 - (b) 25 – 99 w/w-%, relative to the total weight of the dispersion, of an aqueous phase.
2. The product according to claim 1 wherein the wax dispersion additionally contains 0,01 – 5 % (w/w relative to the total weight of the dispersion) of a polymer.
3. The product according to claim 2 wherein the polymer is selected from the group of polyacrylates, polysaccharides, polyacrylamides or any mixture of these polymers.
4. The product according to any of the preceding claims wherein the wax phase comprises components selected from fats, waxes, fatty alcohols, fatty acids, and any mixture of these components.

ture of these components.

5. The product according to any of the preceding claims wherein the wax dispersion further contains a suitable emulsifier.
6. The product according to claim 5 wherein the wax dispersion comprises:
 - (a) 1 - 50 weight % of a wax phase comprising:
 - (a1) 0.1 - 30 weight % of at least an oil or wax component selected from C_{14} - C_{30} -dialkyl ethers, C_{14} - C_{30} -dialkyl carbonates, C_4 - C_{34} -dicarbonic acids or C_{12} - C_{30} -hydroxyfatty alcohols or any mixture thereof;
 - (a2) 0.1 - 10 % (w/w) of at least one oil;
 - (a3) 0.1 - 10 % (w/w) of at least one non-ionic emulsifier
 - (a4) 0.1 - 40 % (w/w) of at least one further waxy lipid component; w/w relative to the total weight of the wax dispersion;
 - (b) 50 - 99 % (w/w) of an aqueous phase; w/w relative to the total weight of the wax dispersion.
7. The product according to any of the preceding claims wherein the wax dispersion contains 5 - 30 weight-% of a wax phase, in particular 10 - 25 weight-% of a wax phase, relative to the total weight of the wax dispersion.
8. The product according to any of the preceding claims wherein the wax phase comprises mono-, di- or triglycerides, fatty alcohols, fatty acids or any combination of these ingredients.
9. The product according to any of the preceding claims wherein the additional aqueous phase or the wax dispersion, or both, contains one or more active substances.
10. The product according to claim 9 wherein the active substance(s) is or are anti-microbials, e.g. anti-bacterials and antifungals, anti-inflammatory agents, anti-irritating, anti-itching, anti-perspirant, anti-ageing, ant-stinging, soothing, calming agents.

11. The product according to any of the preceding claims wherein the applicator has been treated with an additional aqueous phase.
12. The product according to claim 11 wherein the applicator has been treated with the additional aqueous phase, after which the product has been dried, and to which subsequently the wax dispersion has been applied.
13. The product according to claim 11 wherein the applicator has been treated simultaneously with the additional aqueous phase and the wax dispersion, after which the product has been dried.
14. The product according to claim 11 wherein the applicator has been treated with the additional aqueous phase and to which subsequently the wax dispersion has been applied, whereafter the product has been dried.
15. The product according to claim 11 wherein the applicator has been contacted with the wax dispersion and has been subsequently treated with the additional aqueous phase, whereafter the product has been dried.
16. A method of manufacturing a product as claimed in any of the preceding claims, said method comprising contacting the applicator with the wax dispersion.
17. The method according to claim 16, said method further comprising treating the applicator with the additional aqueous phase either subsequently or simultaneously to the contacting with the wax dispersion.
18. The method of claim 16 or 17, said method further comprises a drying step.
19. The method of one of claims 16 to 18 wherein the additional aqueous phase is applied by spraying, dripping, immersing or running through a bath, and the wax phase is applied by spraying, contacting, printing or a direct contact process where there is a direct contact between the applicator and an application head having slit nozzles.

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20. Use of a product as claimed in any of claims 1 to 15 as an applicator of active substances, or as a cleanser, or as a combined cleanser and applicator of active substances.